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Preface

Audience

This installation guide is intended for installers, programmers, technical support teams, product specialists, and others who are responsible for installing Oracle Hospitality Simphony release 18.2.

Customer Support

To contact Oracle Customer Support, access My Oracle Support at the following URL:

https://support.oracle.com

When contacting Customer Support, please provide the following:

• Product version and program/module name
• Functional and technical description of the problem (include business impact)
• Detailed step-by-step instructions to re-create
• Exact error message received and all associated log files
• Screen shots of each step you take

Documentation

Once Simphony has been installed, for information about accessing the Simphony Enterprise Management Console (EMC) or when performing Simphony upgrades on existing systems, see the Oracle Hospitality Simphony Post-Installation or Upgrade Guide, specifically the EMC Access Security chapter.


Revision History

<table>
<thead>
<tr>
<th>Date</th>
<th>Description of Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>December 2018</td>
<td>Initial publication.</td>
</tr>
<tr>
<td>February 2019</td>
<td>Updated the applicable Simphony versions for upgrading in the Upgrading to the Simphony 18.2 Release section.</td>
</tr>
</tbody>
</table>
Getting Started

This guide provides instructions on how to install and configure Simphony release 18.2.

Simphony release 18.2 is compatible with Reporting and Analytics (R&A) releases 8.5.1 Patch 3 (for all-in-one installations), 9.0 Patch 8, and 9.1.

You must install R&A separately from Simphony using the Back Office R&A installation application. Upgrade R&A to release 8.5.1 Patch 3 or higher before upgrading to Simphony release 18.2.

For Simphony Cloud Services users, refer to the Simphony Cloud Services Post-Installation or Upgrade Guide for more information about the required steps to take after performing an installation or upgrade.

- About Simphony Release Numbers
- Simphony Deployment Process

About Simphony Release Numbers

Simphony releases are categorized by numeric segments that indicate release information.

A release in a calendar year starts with the last two digits of the calendar year. For example, if the release year is 2018, the release version starts with 18. If the release year is 2019, the release version starts with 19. Previously, release versions were in the format 2.10.X.

A minor release can occur in the year that follows the major release. For example, there can be an 18.X minor release in 2019 to support the major release from 2018.

Release versions are in the format [NN].[N].[X].[XXXX], where:
- N is a number
- X is a wild-card number
- Changes made at the major level include architectural changes to the application
- The first [NN] represents the year of the release
- Changes made at the minor level include minor changes to the application

Additional hardware platform and operating system support can be added at the minor level.

For functional changes to the product with no changes in the operating system or security of the application:
- Changes at an interim level are represented by a wild-card (X).
- Changes made at the build level are daily changes that include partial or full changes made on a daily basis. Changes at this level are not represented or shown on the released product.
Simphony Deployment Process

The following high-level steps comprise the Simphony deployment process.

1. Select the deployment scenario that aligns with the Reporting and Analytics (R&A) release to be used.

   Before installation and configuration, determine which deployment scenario meets your requirements. See Implementation Deployment Scenarios for more information about the minimum requirements based on the implementation scenario that is deployed.

2. Install the database server application.

   Install one of the following database platforms before installing Simphony application components:
   - Oracle Database 11g
   - Oracle Database 12c
   - Microsoft SQL Server 2008 R2
   - Microsoft SQL Server 2012 R2

   Oracle Database Documentation contains more information.

3. Install or upgrade R&A.

   Run the Simphony 18.2 release installation application to perform a fresh installation, upgrade, or upon adding application or database servers. List of Simphony Components and Services contains more installation information.

4. Install Simphony.

5. Configure Post-installation Settings to ensure that the application components and the database are configured correctly after installation.

6. Log in to EMC to ensure that the Simphony application and the database applications are set correctly.

   • Implementation Deployment Scenarios

Implementation Deployment Scenarios

Simphony and Reporting and Analytics Installation Elements

Here are the required installation elements for implementing Simphony release 18.2 along with Reporting and Analytics release 9.1.
Figure 1-1  Simphony and Reporting and Analytics Installation Elements

**Single Server All-in-One Installation**

Here are the minimal installation requirements for a single server implementation of Simphony release 18.2 and Reporting and Analytics release 9.1.
Figure 1-2  Single Server All-in-One Deployment

**Single Server All-in-One Installation**

**Minimum Requirements**

**Required Application Versions**

- Simphony versions 18.2 / 19.1
- Reporting and Analytics version 9.1

**Simphony**

- Simphony Database

**Reporting and Analytics**

- Reporting Database

- Application Tools
  - Microsoft IIS (EGateway)
  - Enterprise Management Console (EMC)
  - Client Application Loader (CAL)
  - Engagement Cloud Service
  - Simphony Web Portal (SWP)

- Web Layer
  - Portal
  - Labor

- Windows Services
  - Microsoft Windows Services
    - Mobile Aggregation Service
  - DataRequestProcessService
  - DataTransferService
  - DirectPostingService
  - SequencerService

**SINGLE SERVER**

**Multiple Server Installation**

Here are the minimal installation requirements for a multiple server implementation of Simphony release 18.2 and Reporting and Analytics release 9.1.
Multiple Server Deployment

Multiple Server Load Balanced System

Here are the minimal installation requirements for a multiple server load balanced system implementation of Simphony release 18.2 and Reporting and Analytics release 9.1.
Figure 1-4  Multiple Server Load Balanced Deployment

Load Balanced System
Minimum Requirements

Required Application Versions

- Symphony versions 18.2 / 19.1
- Reporting and Analytics version 9.1

Databases

Symphony Database
Reporting Database

Application Server 1

- Microsoft IIS (EGateway)
- Web Logic Reporting & Analytics
- All Microsoft Windows Services

Application Server 2

- Microsoft IIS (EGateway)
- Web Logic Reporting & Analytics
- All Microsoft Windows Services

Load Balancer
Pre-Installation Tasks

The following table lists the database platform pre-installation tasks that must be performed on the Simphony application and database server (or servers).

Table 2-1  Pre-Installation Tasks for Simphony Release 18.2

<table>
<thead>
<tr>
<th>Pre-Installation Task</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Obtain the Simphony and Reporting and Analytics (R&amp;A) software installation media</td>
<td>For instructions on attaining software, see Obtaining Installation and Patch Set Software</td>
</tr>
<tr>
<td>and the latest patch set software (as needed)</td>
<td></td>
</tr>
<tr>
<td>Obtain and install a database platform on the database server (or servers)</td>
<td>Simphony release 18.2 supports the following database platforms:</td>
</tr>
<tr>
<td></td>
<td>• Oracle Database 11g Enterprise Edition</td>
</tr>
<tr>
<td></td>
<td>• Oracle Database 12c Enterprise Edition</td>
</tr>
<tr>
<td></td>
<td>• Microsoft SQL Server 2008 R2 Enterprise Edition</td>
</tr>
<tr>
<td></td>
<td>• Microsoft SQL Server 2012 R2 Enterprise Edition</td>
</tr>
<tr>
<td></td>
<td>For Oracle Database users, create the Tablespace for the database. See After Installing Oracle Database 12c for more information about creating Tablespaces.</td>
</tr>
<tr>
<td></td>
<td>For instructions on installing and setting up the Oracle Database, see Installing Oracle Database 12c.</td>
</tr>
<tr>
<td></td>
<td>For instructions on installing Microsoft SQL Server, refer to the Microsoft TechNet Library.</td>
</tr>
<tr>
<td></td>
<td>You can also install Simphony on a Microsoft SQL Server 2008 or 2012 R2 Failover Cluster. For instructions on installing a Microsoft SQL Server 2008 or 2012 R2 Failover Cluster, refer to the Microsoft TechNet Library.</td>
</tr>
</tbody>
</table>
Table 2-1  (Cont.) Pre-Installation Tasks for Simphony Release 18.2

<table>
<thead>
<tr>
<th>Pre-Installation Task</th>
<th>Instructions</th>
</tr>
</thead>
</table>
| *For Oracle Database users only; Grant PUBLIC access for the DBMS_LOB and DBMS_SCHEDULER on the database server | The Simphony installer requires access to execute certain Oracle database packages for which public privileges are not granted. This makes it necessary to request that temporary public access be granted for the installation to run successfully, after which the public grant can be revoked and a specific schema grant be created. Before performing a new installation, using Oracle SQL Developer, execute the following requests:  
  • GRANT EXECUTE ON DBMS_LOB TO PUBLIC  
  • GRANT EXECUTE ON DBMS_SCHEDULER TO PUBLIC  
Before performing an upgrade, using Oracle SQL Developer, execute the following request:  
  • GRANT EXECUTE ON DBMS_SCHEDULER TO PUBLIC  
Refer to the Oracle Database Security Guide for more information. |
| *For Oracle Database users only; install the Oracle Database Client that matches the version of Oracle Database your database server is running | Regardless of the Oracle Database version you are using, install or update your Oracle Database Client to match the version of Oracle Database that is installed on your database server. Oracle Database Client Installation contains more information about installing the Oracle Database Client. |
| *For Microsoft SQL Server users only; Manually create the folders to store the Microsoft SQL Server database files | For Simphony properties using Microsoft SQL Server, upon performing upgrades from Simphony release 2.9.2 or later, and wanting to physically separate the Transaction (MCRSPOS) and Security (MCRSCACHE) databases, manually create a database destination folder on the new database server before the upgrade. The database installation path entered in the Remote Database Location field needs to already exist on the destination database server. For example, create a C:\MICROS\Data or D:\MICROS\Data folder on the new database server, and then enter the newly created folder's path in the Remote Database Location field. This path is used to create the new Security and Transaction databases. View or Change the Default Locations for Data and Log Files contains more information about setting default database locations for Microsoft SQL Server users. |
Table 2-1  (Cont.) Pre-Installation Tasks for Simphony Release 18.2

<table>
<thead>
<tr>
<th>Pre-Installation Task</th>
<th>Instructions</th>
</tr>
</thead>
</table>
| Install and configure Microsoft Internet Information Services (IIS)                   | Microsoft IIS needs to be installed and configured on each Simphony and Reporting and Analytics application server. Microsoft IIS is required to be installed in order to initiate the process to obtain and install secure certificates as outlined in the next step.  
  See [Installing Microsoft Internet Information Services (IIS) and Windows Communication Foundation (WCF) Features](#) for information about configuring IIS for a Simphony system. |
| Obtain Certificate Authority issued certificates for use with Simphony and R&A        | From within Microsoft IIS, initiate a Certificate Signing Request (CSR) to obtain and install a TLS 1.2 compliant Certificate Authority (CA) issued secure certificate on each Simphony application and R&A server. CA issued certificates are required to be installed. Self-signed certificates are not supported.  
  For information about requesting and installing secure certificates, see [Requesting Secure Server Certificates and Completing a Secure Server Certificate Installation](#). |
| Configure Log File Rollover options for Internet Information Services (IIS)           | For instructions on configuring log file rollover options, refer to the [Microsoft TechNet Library](#) and search the site using: Configure Log File Rollover Options as the search phrase. |
| Install Microsoft .NET 4.6.2 Framework                                               | Run the Microsoft .NET 4.6.2 Framework setup from the Simphony installation media by accessing and navigating to the Prerequisites \DotNetFramework462 folder, following the on-screen instructions. |
| Turn on Data Execution Prevention (DEP)                                               | For instructions about turning on DEP on the server, refer to the [Microsoft TechNet Library](#).                                                                                                           |
| Disable Anti Denial-Of-Service (DOS) Attacks                                          | If you are installing Simphony with Microsoft SQL Server as the database platform, add the SynAttackProtect registry key to the computer that is running Microsoft SQL Server.  
  For instructions on disabling DOS attacks, refer to the [Microsoft TechNet Library](#). |
| Temporarily disable anti-virus software from the application and database servers just before the installation | Simphony can silently fail to install due to anti-virus software. Temporarily disable or add exclusions for anti-virus software on Simphony and database servers just before installing Simphony. You can re-enable the anti-virus software after Simphony applications and databases are installed. |
Obtaining Installation and Patch Set Software

To obtain software installation media, click here: Oracle Software Delivery Cloud (OSDC).

A Demo is available on the OSDC page that reviews the software download process if you require more information.

1. To download the Simphony software:
   a. Sign In (or register) on the home page.
   b. Enter Simphony in the Search field.
   c. Select the latest release of Oracle Hospitality Simphony, and then click + Add to Cart.
   d. Click View Cart and follow the instructions there.

2. To download the Reporting and Analytics software:
   a. Enter Reporting and Analytics in the Search field.
   b. Select the latest release of Oracle Hospitality Reporting and Analytics, and then click + Add to Cart.
   c. Click View Cart and follow the instructions there.

3. To obtain the latest software patch for Simphony or Reporting and Analytics, click here: My Oracle Support (MOS).
   a. Sign In (or register) on the home page.
   b. Click the Patches & Updates tab on the toolbar.
   c. In the Patch Search section, on the Search tab, enter Oracle Hospitality Simphony in the Product field.
d. Click the drop-down list from the **Release** field, select the latest patch for that release, and then click **Search**.

e. In the results area, select the latest patch set from the **Patch Name** column.

f. To obtain the patch software, click the **Download** button. The **File Download** window appears.
g. To read about the fixes included in the patch set, click the **Read Me** button.

h. To complete the download process, click the **Download** or **Download All** button.

![Figure 2-4  MOS — File Download](image)

4. To obtain the latest Reporting and Analytics patch set:
   a. In the **Patch Search** section, on the **Search** tab, enter **Oracle Hospitality Reporting and Analytics** in the **Product** field.

![Figure 2-5  MOS Patches and Updates — Reporting and Analytics Patch Search](image)
b. Click the drop-down list from the **Release** field, select the latest patch for that release, and then click **Search**. In the results area, select the latest patch set from the **Patch Name** column.

![Figure 2-6 MOS Patches and Updates — Reporting and Analytics Patch Advanced Search Results](image)


c. To obtain the patch set software, click the **Download** button. The **File Download** window appears.

![Figure 2-7 MOS Patches and Updates — Reporting and Analytics Patch Download and Read Me Documentation Access](image)

d. To read about the fixes included in the patch set, click the **Read Me** button.

e. To complete the download process, click the **Download** or **Download All** button.

f. After the product installation or patch set software has been downloaded, place the software on the appropriate application server and implement the installation or upgrade.

---

**Installing Microsoft Internet Information Services (IIS) and Windows Communication Foundation (WCF) Features**

This section reviews configuring Microsoft Internet Information Services (IIS) and Microsoft Windows Communication Foundation (WCF) Services (if necessary) on Simphony application servers. Microsoft WCF configuration only needs to be performed on servers where the Simphony Web Portal (Import/Export) and API are installed.

Access the Simphony application server (running Microsoft Windows Server 2012 R2):

1. Access the Control Panel, click Programs, and then beneath Programs and Features, click Turn Windows features on and off.

2. The Server Manager Dashboard loads and subsequently, the Add Roles and Features Wizard.

3. Access the Server Manager and select 2 Add roles and features.

Figure 2-8  Server Manager – Dashboard — Adding Roles and Features

4. Click Next.
5. Select **Role-based or feature-based installation**, and then click **Next**.

6. Select the **Select a server from the server pool** option.

7. Select the server you are configuring, and then click **Next**.
8. Click Next.

9. Expand **.NET Framework 3.5 Features** and ensure that **HTTP Activation** and **Non-HTTP Activation** are selected.
10. Expand .NET Framework 4.5 Features, enable WCF Services, and then ensure that HTTP Activation and TCP Activation are selected.

The WCF Services configuration only needs to be performed on servers where the Simphony Web Portal (Import/Export) and API are installed.

11. Ensure that the Include management tools (if applicable) checkbox is selected, and then click Add Features.
12. Expand the **Web Server** role services and options and select the following Common HTTP Features:
   - Default Document
   - HTTP Errors
   - Static Content

   From a system security standpoint, the **Directory Browsing** role service should not be enabled.

13. Select the following **Health and Diagnostics** options:
   - HTTP Logging
   - Request Monitor

14. Select the **Performance** option **Static Content Compression**.

15. Select the **Security** option **Request Filtering**.
16. Select and expand **Application Development**, and then select the following options:

- .NET Extensibility 4.5
- ASP
- ASP .NET 4.5
- ISAPI Extensions
- ISAPI Filters
17. Select and expand **Management Tools**, and then select the following options:
   - IIS Management Console
   - IIS Management Scripts and Tools

18. Select **IIS 6 Management Compatibility**, and then select the following options:
   - IIS 6 Metabase Compatibility
   - IIS 6 Management Console
   - IIS 6 Scripting Tools
   - IIS 6 WMI Compatibility
19. Click **Next** as needed, and then click **Install**.

   a. If you are performing an upgrade to Simphony release 18.1 or later from an earlier version, the **ImportExportAppPool** is renamed to **SimphonyAppPool**.

   b. For fresh Simphony 18.1 and later installations, several Application Pools including the **SimphonyAppPool** are created for you.

   Locate the following Application Pools, click each one individually, right-click, and then select **Recycle**.

   - **ImportExportAPIPool**
   - **Simphony2Pool**
   - **SimphonyAppPool**

20. Restart the server for the roles and features to become operative.

### Requesting and Installing Secure Certificates

Secure certificates (issued by a Certified Authority) must be installed on Simphony and Reporting and Analytics servers prior to installing these applications. During the Simphony installation, there is an opportunity to load the certificate from the installation wizard. Simphony and Reporting and Analytics do not support self-signed certificates.

This section provides instructions on how to request and complete the installation of secure certificates.

- **Requesting Secure Server Certificates**
- **Completing a Secure Server Certificate Installation**
- **Configuring Recycle Settings for the IIS Application Pool**
Requesting Secure Server Certificates

1. From the application server, click the **Start** button, click or search for the **Internet Information Services (IIS) Manager** and open it.

2. In the **Connections** section, click the server name.

3. In the center Home menu, double-click the **Server Certificates** button in the IIS section.

4. Click **Create Certificate Request...** from the Actions menu.

5. Enter the appropriate information in the Request Certificate window, and then click **Next**.

   The **Common name** field (through which the certificate is eventually accessed) is usually the application server's fully qualified domain name (FQDN) (for example, www.domain.com or mail.domain.com).
6. Select **Microsoft RSA SChannel Cryptographic Provider** from the **Cryptographic service provider** drop-down list, unless you have a another specific cryptographic provider.

7. Select **2048** (or higher) from the **Bit length** drop-down list, and then click **Next**.
8. Click the ellipsis (...) button to browse to a location where you want to save the Certificate Signing Request (CSR) file.
   a. Remember the filename and the location where you save it.
b. Open this file as a text file and copy the entire body of it (including the Begin and End New Certificate Request tags) into the Certificate Request file.

9. Save the certificate or email named **your_domain_name.cer** to the desktop of the web server you are securing.
Completing a Secure Server Certificate Installation

1. From the application server, click the Start button, click or search for the Internet Information Services (IIS) Manager and open it.

2. In the Connections section, click the server name.

3. In the center Home menu, double-click the Server Certificates button in the IIS section.
4. Click **Complete Certificate Request…** from the Actions menu.

5. Complete the following in the Complete Certificate Request window:
   a. Browse and select your certificate (in .cer format). This file should be provided to you from the vendor where you purchased your certificate, and in response to your CSR submission.
   b. Enter the **Friendly name**, if it is not already populated. This is the application server’s fully qualified domain name (FQDN) (for example, www.domain.com or mail.domain.com).
6. Click OK.

If a certificate is installed or changed after installing Simphony, you must perform several steps to bind the certificate to the IIS website. See Binding Secure Server Certificates to IIS for instructions.

Configuring Recycle Settings for the IIS Application Pool

If you configure the application pool to recycle at a scheduled time using the IIS Manager, consider configuring the following recycle settings for the IIS Application Pools:

- Ensure that the specific times you define do not coincide with your Start-of-Day (SOD) or periods of peak sales activity.
- Set the Memory Based Maximums to less than half of the available server memory.
- Set the Simphony2 App Pool Pipeline mode to Classic.
- Set the Disable Overlapped Recycle setting to True for the Simphony2 App Pool.

In addition to the Simphony2 App Pool, the following IIS App Pools are also installed:

- ImportExportAPIPool: For the Import Export Service.
- WCCPool: For the Engagement feature.

These App Pool's Pipeline mode settings can remain on their default settings.
For instructions on configuring an application pool to recycle at a scheduled time, refer to the Microsoft TechNet Library at https://technet.microsoft.com/en-us/.

Binding Secure Server Certificates to IIS

If a certificate is installed or changed after installing Simphony, you must perform the following steps to bind the secure certificate to the IIS website.

1. Click Start, and then click Control Panel.
2. If you are using Windows Server 2012 R2, click System and Security, and then click Administrative Tools.
3. In the Administrative Tools window, double-click Internet Information Services (IIS) Manager.
4. Under Connections, Sites, select the site to be secured with the SSL Certificate.
5. From the Actions menu (on the right), click Bindings.... The Site Bindings windows opens.
6. In the Site Bindings window, click Add.... The Edit Site Bindings window opens.
7. From the Type drop-down list, select https.
8. Enter the IP address of the site or select All Unassigned.
9. Enter the port number in the Port field.
   The port over which traffic is secured by SSL is usually 443. The SSL Certificate field should specify the installed certificate.
10. Click OK.

Database Platform Installation

A database platform must be selected and installed prior to installing Simphony or Reporting and Analytics. Simphony release 18.2 supports the following database platforms:

1. Oracle Database 11g Enterprise Edition
2. Oracle Database 12c Enterprise Edition

See Installing Oracle Database 12c for Oracle Database installation instructions for a Simphony system.

For instructions on installing Microsoft SQL Server, refer to the Microsoft TechNet Library.

You can also install Simphony on a Microsoft SQL Server 2008 or 2012 R2 Failover Cluster. For instructions on installing a Microsoft SQL Server 2008 or 2012 R2 Failover Cluster, refer to the Microsoft TechNet Library.

- Installing Oracle Database 12c
- After Installing Oracle Database 12c
- Oracle Client Installation
Installing Oracle Database 12c


Simphony release 18.2 is not supported with pluggable databases.

To install Oracle Database 12c for a Simphony installation:

1. Place the Oracle Database installation media onto your database server.
2. Open the source installation file and run the setup executable.
3. To receive security updates from My Oracle Support, enter both your email address and My Oracle Support password and click Next.

   If you deselect the I wish to receive security updates via My Oracle Support checkbox, a message prompt appears. Click Yes, and then click Next.

   ![Figure 2-28 Configure Security Updates](image)

   4. Select Create and configure database, and then click Next.
5. Select Server class, and then click Next.
6. Select **Single instance database installation**, and then click **Next**.
7. Select **Advanced install**, and then click **Next**.
8. Select **Enterprise Edition (6.0GB)**, and then click **Next**.
9. Select **Use Windows Built-in Account**, and then click **Next**. A message prompt appears. Click **Yes**, and then click **Next**.
10. Select an appropriate installation location in the **Oracle base** field to place database configuration-related files (or example, C:\Oracle). Specify the location for storing Oracle database software files separate from database configuration files in the **Software location** field, and then click **Next**.
11. Select General Purpose / Transaction Processing, and then click Next.
12. Enter `simphony` for the **Global database name** and **Oracle system identifier (SID)** fields. Deselect the checkbox adjacent to the **Create as Container database** option, and then click **Next**.
13. Select the checkbox adjacent to the **Automatic Memory Management** option.

This feature is not supported if there is more than 4GB of memory installed on your system. Deselect the option if the system exceeds 4GB of memory. A message prompt appears if the system exceeds 4GB of RAM. Consult with an Oracle DBA if you need to adjust memory settings.
14. Select the **Character sets** tab, select **Use Unicode (AL32UTF8)**, and then click **Next**. This setting is required.
15. Select the **Sample schemas** tab, deselect the **Install sample schemas in the database** checkbox, and then click **Next**.
16. Select File system, and then click Next.
17. Deselect the checkbox adjacent to the **Register with Enterprise Manager (EM) Cloud Control** option, and then click **Next**.
18. Deselect the checkbox adjacent to the **Enable Recovery** option, and then click **Next**.
19. Select **Use the same password for all accounts**, enter and confirm your password, and then click **Next**.
20. Before initiating the install, a prerequisite check is performed by the Oracle Database installation application. Click **Next**.
Figure 2-45 Perform Prerequisite Checks

21. A summary window appears. Review it, and if correct, click **Install**.
After Installing Oracle Database 12c

The Oracle Database version that is installed on your database server must match the one on your Oracle Database Client. Oracle Client Installation contains more information about installing Oracle Database Clients.

Creating Oracle Database Tablespaces

When using an Oracle database, ensure that the Simphony database Tablespaces are created on your sever.

Create the following Oracle database Tablespaces on the database server or servers:

- MCRSPOS
- MCRSCACHE

Appendix A: Sample Script for Creating Oracle Tablespaces contains a sample script to create the database Tablespaces. The Oracle Database Platform Guide for Microsoft Windows and the Oracle Database Administrator's Reference for Linux and UNIX-Based Operating Systems contain more information about creating database Tablespaces.

Increasing Database Process Count

Run the `ALTER SYSTEM SET processes=300 SCOPE=SPFILE;` command on the Oracle Database and restart the Oracle Database Service. If you are using the Oracle
Linux operating system, run the `shutdown immediate;` command and then run the `STARTUP pfile=init.ora;` command to restart the service. The *Oracle Database Platform Guide for Microsoft Windows* and the *Oracle Database Administrator’s Reference for Linux and UNIX-Based Operating Systems* contain more information about restarting the Oracle Database Service.

If you are using a Microsoft Windows Server, restart the `OracleServiceSIMPHONY` service using the Windows Services dialog. The *Platform Guide for Microsoft Windows* contains more information about restarting the Oracle Database Service on Microsoft Windows Servers.

### Oracle Client Installation

The Simphony installation media automatically installs the Oracle Database Client. Ensure that the Oracle Database Client version matches the version of Oracle Database that is installed on your database server.

Depending on the version of Oracle Database you are running, here are manual installation instructions for various versions of the Oracle Database Client:

1. For the Oracle Database 11g Release 2 client for Microsoft Windows 64-bit, click [here](#).
2. For the Oracle Database 11g Release 2 client for Microsoft Windows 32-bit, click [here](#).
3. For the Oracle Database 12c Release 1 client for Microsoft Windows 64-bit and 32-bit, click [here](#).
4. For the Oracle Database 12c Release 2 client for Microsoft Windows 64-bit, click [here](#).

### Installing Reporting and Analytics

You must install Reporting and Analytics (R&A) separately from Simphony using the Back Office R&A installation application. If you are upgrading from a release prior to Simphony 2.9, you must upgrade to Reporting and Analytics release 8.5.1 Patch 3 prior to installing or upgrading to Simphony release 2.9. Simphony releases 2.10, 18.1, and 18.2 are compatible with both R&A release 8.5.1 Patch 3 and 9.0 Patch 8. Simphony release 18.2 is also compatible with R&A release 9.1.

The *Oracle Hospitality Enterprise Back Office Installation Guide* contains more information about installing reports for Simphony.

### Enabling Communication Between the Enterprise and Workstations

To allow workstations at the property to communicate with the Enterprise, you must add Firewall exceptions for the following services on the Simphony application servers using either the default ports or the ports you assign when installing Simphony release 18.2.

- Internet Information Services (IIS): By default uses Transmission Control Protocol (TCP) port 8080 or port 443 for HTTPS connections.
- Oracle Hospitality Labor Management: By default uses TCP port 81.
You may need to open extra ports for additional Simphony features. Contact your local support representative or Oracle Hospitality Support Services for assistance.


Installing Simphony Database Components on Microsoft SQL Server

When installing Simphony with Microsoft SQL Server, you cannot install the databases from a remote machine; you must run the Simphony database setup on the local database servers and install the database components.

Beginning with the Simphony 2.10 release and later, you can upgrade application components on servers with or without downloading CAL Packages to the Simphony database. This flexibility can speed the upgrade process on properties using multiple application servers.

1. Run the Setup file, and then click Next to continue the installation.
2. Select Database Components Only, and then click Next.
3. Select MS-SQL as the database platform type, and then click Next.
4. Enter or select the location to install Simphony, and then click Next twice.
   Oracle recommends that you install the Simphony application on a separate partition from where the Microsoft Windows operating system resides.
5. To install Simphony with a blank database:
   a. Select Blank Database.
   b. Enter a strong Username and Password to comply with Payment Card Industry (PCI) security guidelines.
      The credentials that you enter here are used to create the Simphony super user to access the EMC.
   c. Confirm the password, and then click Next.
6. Enter or select the location to create the transaction database data files, and then click Next.
   List of Simphony Database Configuration Fields contains more information on the database setup options.
7. Enter the information to configure the transaction database, and then click Next.
8. Enter the credentials for the SA user, and then click OK.
9. Enter or select the location to create the security DB data files, and then click Next.
10. Enter the information to configure the security database, and then click Next.
11. Click Confirm.
12. After the installation completes, click Finish to exit the Simphony setup.
List of Simphony Database Configuration Fields

The following table describes the fields that appear on the Simphony installation application when configuring the Simphony databases.

### Table 2-2  List of Database Configuration Fields

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Name</td>
<td>If you are using an Oracle database, enter a service name on which to install the Simphony database.</td>
</tr>
<tr>
<td>Instance Name</td>
<td>If you created a named instance to install Simphony on Microsoft SQL Server, enter the instance name.</td>
</tr>
<tr>
<td>Username</td>
<td>Enter a strong username for the database.</td>
</tr>
<tr>
<td>Password</td>
<td>Enter a strong password for the user defined in the Username field to use to connect to the database.</td>
</tr>
<tr>
<td>Database Name</td>
<td>Enter a name for the database if you want to use a name other than the default. This field only appears if you select Microsoft SQL as your database type.</td>
</tr>
<tr>
<td>Database Port</td>
<td>To use a port other than the default, enter the port number to use to connect to the database.</td>
</tr>
</tbody>
</table>
Simphony Installation

This chapter contains instructions to install Simphony using the Simphony POS Installation application.

- Simphony Installation for an All-in-One Server
- Installing Simphony on Multiple Servers
- List of Simphony Components and Services
- MFA Configuration During the Installation of Simphony

Simphony Installation for an All-in-One Server

The All-in-One server installation scenario is supported with Reporting and Analytics (R&A) release 8.5.1 Patch 3, and R&A release 9.1.

1. Log in and download the Simphony release 18.2 installation application from the Oracle Technology Network (OTN) website at https://edelivery.oracle.com/.
2. Run the Setup file, and then click Next to continue the installation.
3. Select Application and Database Components, and then click Next. List of Simphony Components and Services contains more information.
4. Select all of the components, and then click **Next**. The Simphony Data Request Processing Service is installed by default, and is used for Import/Export tasks.
5. Select all of the components that are to be enabled by default, and then click **Next**.

**Figure 3-3  Simphony Install Components to Enable by Default**
6. If you are not using a Load Balancing server and are using the Import/Export feature or plan to use the Simphony Engagement Cloud Service:
   a. Select IIS for the **Certificate Location** field.
   b. To add a new certificate, select **New**, click **Select**, enter or select the certificate location, and then enter the **Password** for the certificate.
   c. To add an existing certificate, select **Existing**, and then select the certificate from the drop-down list.
   d. Enter the port number in the **Service Host Secure Port** field.

   See Requesting and Installing Secure Certificates for more information about requesting and installing secure certificates.

   If you define a Service Host Secure Port number other than the default of 443, you need to configure the IIS Bindings of each Application Pool to the new port. To add IIS Bindings, refer to Binding Secure Server Certificates to IIS and the Microsoft TechNet Library at https://technet.microsoft.com/en-us/ for more information.

7. Enter the IP address of the server for the **Service Host Name** (computer name) in the **Https IP Address** field. If the server is using a Domain Name System (DNS) or Host file mapping, you can enter the name of the server instead of the IP address. To install Simphony on a named instance of Microsoft SQL Server, enter the Server Host Name as ServerName\InstanceName.

**Figure 3-4  Simphony Install Certificate Information**

8. Click **Next**.
   For the **All-in-One Server** installation scenario, skip Steps 9, 10, and 11.
9. If you are using the Import/Export Service or plan to use the Simphony Engagement Cloud Service, on Oracle RAC or a Load Balancing server, select LoadBalancer for the Certificate Location field.

10. Enter the port number in the Service Host Secure Port field.
   - If you define a Service Host Secure Port number other than the default of 443, you need to enable that port on the Load Balancer server.
   - If you define a Service Host Secure Port number other than the default of 443, you need to configure the IIS Bindings of each Application Pool to the new port. To add IIS Bindings, refer to Binding Secure Server Certificates to IIS and the Microsoft TechNet Library at https://technet.microsoft.com/en-us/ for more information.
   - You can define any free port number for the Service Host Port. If you define a port number other than the default 443, you must manually change the port number when you install subsequent services.
   - If you plan to install Reporting and Analytics on the same server as Simphony, do not assign port number 8081 for the Service Host Port. This is the default port number assigned to the Red Hat JBoss server for Back Office Reports.

   a. Select IIS in the Certificate Location field.
   b. To add a new certificate, select New, click Select, enter or select the certificate location, and then enter the Password for the certificate.
   c. To add an existing certificate, select Existing, and then select the certificate from the drop-down list.

11. Click Next.

Figure 3-5 Service Host and Default Gateway Addresses
12. Enter the **Service Host Name** and **Service Host Port** number, as well as the **Default Gateway IP** and **Default Net Mask** IP addresses, and then click **Next**.

13. Select the database platform type of either Microsoft SQL Server or Oracle Database, and then click **Next**:
   a. If you are using an Oracle Database, select **Oracle**.
      For All-in-One installation scenarios, the installation application installs an Oracle 12c client (even if you are using Oracle Database 11g as a platform). If you are using Oracle Database 12c, the installer does not install an Oracle 12c client.
   b. Click **OK** to install the 12c client if prompted to do so.
   c. If you are using a Microsoft SQL Server database, select **MS-SQL**.

14. Enter or select the location to install Simphony, and then click **Next** twice.
   Oracle recommends that you install the Simphony application on a separate partition from where the Microsoft Windows or Oracle Linux operating system resides (usually the C:\ drive).

15. To install Simphony with a blank database:
   a. Select **Blank Database**.
   b. Enter a strong **Username** and **Password** to comply with Payment Card Industry (PCI) security guidelines. The credentials that you enter here are used to create the Simphony super user to access the EMC.
   c. Confirm the password, and then click **Next**.

16. If you selected **Oracle** as the database platform type:
   a. Enter the information to create the transaction database, and then click **Next**. List of Simphony Database Configuration Fields contains more information on the database setup options.
   b. Enter the login credentials for the default **sys** user, and then click **OK**.
   c. Enter the information to create the security database, and then click **Next**.
      Oracle recommends separating the Transaction and Security databases onto different servers for additional security.

17. If you selected **MS-SQL** as the database platform type:
   a. Enter or select the location to create the transaction database data files, and then click **Next**. List of Simphony Database Configuration Fields contains more information on the database setup options.
   b. Enter the information to configure the transaction database, and then click **Next**.
   c. Enter the login credentials for the **sa** user, and then click **OK**.
   d. Enter or select the location to create the security DB data files, and then click **Next**.
      Oracle recommends separating the Transaction and Security databases onto different servers for additional security.

18. Enter the following information that is used to connect to the existing security database, and then click **Next**:
   a. **Server Name**: Enter the name of the database server.
b. **Service Name**: (Oracle Database users) Enter the name of the service (TNS alias).

c. **Instance Name**: (Microsoft SQL Server users) Enter the Microsoft SQL Server's database name (usually contains the database server's name).

d. **Username**: Enter your security database access user name.

e. **Password**: Enter your security database access password.

f. **Database Port**: Enter the port number used to access the security database server, and then click **Next**.

**Figure 3-6  Security Database Connection Information**

---

19. Enter the following information to connect to the reporting database.

a. **Server Name**: Enter the name of the reporting database server.

b. **Service Name**: (Oracle Database users) Enter the name of the service (TNS alias).

c. **Instance Name**: (Microsoft SQL Server users) Enter the Microsoft SQL Server's database name (usually contains the database server's name).

d. **Username**: Enter (or verify) your reporting database access user name.

e. **Password**: Enter your reporting database access password.

f. **Database Port**: Enter the port number used to access the reporting database.

g. **Username**: Enter (or verify) your reporting database access user name.

h. **Password**: Enter your reporting database access password, and then click **Next**.
20. You have the option to configure Multi-Factor Authentication (MFA) if you already have your SMTP email servers set up and validated. MFA Configuration During the Installation of Simphony contains instructions about configuring MFA during the installation process.

21. Click **Confirm**.

22. After the installation completes, click **Finish** to exit the Simphony setup.

23. Click **Yes** to restart the computer.

24. Proceed to Post-Installation Tasks to continue.

### Installing Simphony on Multiple Servers

In a multi-server installation, you can install the Simphony application and database components on separate servers.

The following table outlines the process for installing Simphony on multiple servers, depending on the database platform that you are using:

<table>
<thead>
<tr>
<th>Database Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oracle Database</td>
<td>When installing Simphony with an Oracle database, you can install Simphony database components on separate database servers from a remote machine while installing Simphony on the application servers. For properties using separate servers for the Simphony application and databases, install an Oracle 12c Client on all application servers so that it can connect to the remote database server.</td>
</tr>
</tbody>
</table>
Table 3-1  (Cont.) Multiple Server Installation

<table>
<thead>
<tr>
<th>Database Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microsoft SQL Server</td>
<td>When installing Simphony with Microsoft SQL Server, you cannot install the databases from a remote machine; you must run the Simphony database setup on the local database servers and install the database components.</td>
</tr>
</tbody>
</table>

1. To install Simphony on multiple servers using the Oracle Database:
   a. Create Simphony Database Tablespaces.
      After Installing Oracle Database 12c contains more information.
   b. Install the Simphony database components on the database servers.
      Installing Simphony Database Components on Microsoft SQL Server contains more information.
   c. After setting up the database components on the database servers, select Application Components Only, and then click Next.
   d. Select all components, and then click Next.
      List of Simphony Components and Services contains more information.
   e. If you are installing all Simphony application components on a single server, select all the services, and then click Next.
   f. If you are installing Simphony application components on more than one server:
      • On the primary application server, select all services, and then click Next.
      • On all other application servers, deselect Sequencer Service, and then click Next.
   g. Follow the instructions in Simphony Installation for an All-in-One Server to complete the installation. When configuring the databases, enter the Server Host Name or IP Address, Service Host Name, and Login Credentials for the Simphony database servers.
   h. Run the Simphony installation application to install the Oracle 12c Client on all Simphony application servers.

2. To install Simphony on multiple servers using the Microsoft SQL Server:
   a. Install the Simphony database components on the database servers.
      Installing Simphony Database Components on Microsoft SQL Server contains more information.
   b. After setting up the database components on the database servers, select Application Components Only, and then click Next.
   c. Select all components, and then click Next.
      List of Simphony Components and Services contains more information.
   d. If you are installing all Simphony application components on a single server, select all the services, and then click Next.
   e. If you are installing Simphony application components on more than one server:
• On the primary application server, select all services, and then click Next.
• On all other application servers, deselect Sequencer Service, and then click Next.

f. Follow the instructions in Simphony Installation for an All-in-One Server to complete the installation. When configuring the databases, enter the Server Host Name or IP Address, Service Host Name, and Login Credentials for the Simphony database servers.

List of Simphony Components and Services

You can install the following components and services by running the Simphony installation application.

Table 3-2  List of Application and Database Services

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Transfer Service (DTS)</td>
<td>Moves point of sale (POS) definitions and journal data to Reporting and Analytics. This is typically installed on each Simphony application server.</td>
</tr>
<tr>
<td>Direct Posting Service (DPS)</td>
<td>Posts sales data to the Simphony Reports database. This is typically installed on each Simphony application server.</td>
</tr>
<tr>
<td>Enterprise Management Console (EMC) Client</td>
<td>Contains all of the files necessary to run the EMC.</td>
</tr>
<tr>
<td>Open Source</td>
<td>This is typically installed on each Simphony application server.</td>
</tr>
<tr>
<td>Sequencer Service</td>
<td>Responsible for running the Start of Day Autosequences. This is typically installed on each Simphony application server, but is only enabled on one server</td>
</tr>
<tr>
<td>Tools</td>
<td>Installs the tools required for import/export, encryption, and so on. This is typically installed on each Simphony application server.</td>
</tr>
<tr>
<td>Data Request Processing Service</td>
<td>Installs the Import Export Web API and the Web Application Data Request Processing Service. This is typically installed on each Simphony application server. The Web Application Data Request Processing Service processes Simphony Data Import/Export requests and scheduled Import/Export requests.</td>
</tr>
</tbody>
</table>

MFA Configuration During the Installation of Simphony

When running the Simphony installation application, you are prompted to configure Multi-Factor Authentication (MFA). You can either bypass or configure the MFA configuration.

1. To bypass the MFA configuration until after Simphony has been installed, deselect the Email One-Time Password checkbox, and then click Next.

After you deselect Email One-Time Password, you receive a message that indicates your system is not in compliance with Payment Card Industry (PCI) standards.
2. If you choose to configure MFA at this time, the configuration instructions are outlined in the *Simphony Post-Installation or Upgrade Guide*, specifically in the chapter named *EMC Access Security*. Search for the *Configuring the SMTP and Backup SMTP Servers in the EMC* section.

If you are performing a Simphony Standard Cloud Service installation, MFA configuration that is completed during the installation of Simphony is duplicated for each enterprise. After Simphony is installed, you can go back and make edits in the EMC for individual enterprises (or organizations) that might have differing SMTP servers or settings from each other.

**Figure 3-8 Enabling Multi-Factor Authentication**

![Multi-Factor Authentication Configuration](image)
Post-Installation Tasks

Perform all post-installation tasks to ensure that the Simphony components and the database are configured correctly.

- Logging in to EMC
- Setting the Start-Of-Day Sequencer Machine and the App Server Time Zone
- Connecting Reporting and Analytics to Simphony

Logging in to EMC

The Enterprise Management Console (EMC) is the primary configuration application in Simphony. A shortcut for accessing EMC is installed on the application server during the installation.

1. Open the EMC from the shortcut on the desktop or Start menu.
2. Enter the Application Server Host Name:
   - If you are launching EMC locally from the server, enter localhost for the Application Server Host Name.
   - If you are accessing the EMC remotely, enter the Server Host Name or IP address of the Simphony application server.
3. If you installed the blank database, enter the logon credentials for the Simphony super user that you created when installing Simphony.
4. Click Login.
5. Click OK for the EMC Database Credentials Non-Compliance message.

If you can launch and see that the EMC and the Simphony Gateway are running, Simphony is successfully installed.

Setting the Start-Of-Day Sequencer Machine and the App Server Time Zone

1. In the EMC, select the Enterprise level, click the Setup tab, and then click Enterprise Parameters.
2. Click the Miscellaneous tab, and then enter the Microsoft Windows machine name for SOD Sequencer Machine Name.
3. Select the App Server Time Zone.

If you are deploying Simphony on multiple servers, the date, time, and the time zone settings of each application server and database server must correspond. Additionally, the servers’ time zone must correspond with the application server time zone setting in the EMC.
You can synchronize the time settings between the servers by configuring one of the servers to be a Network Time Protocol (NTP) server and then point the rest of the servers to the NTP server. For information on configuring a Network Time Protocol server, refer to the Microsoft TechNet Library at https://technet.microsoft.com/en-us/.

4. Click **Save**.

5. If you installed Simphony on multiple application servers, disable the **Micros Sequencer Service** on all servers other than the SOD Sequencer Machine.

In the event the application server that is running the Micros Sequencer Service has performance issues, start the Micros Sequencer Service on another Simphony application server if the main application server is going to be down for multiple days.

The Micros Sequencer Service on the original server must be stopped prior to it being started on the alternate one. Also, when changing where the Micros Sequencer Service is running, the designation of the SOD Sequencer Machine Name must be updated in the EMC.

**Connecting Reporting and Analytics to Simphony**

With Simphony release 2.10 or later (which includes the Simphony 18.2 release), if you use Reporting and Analytics (R&A) release 9.0 Patch 8 or later, the steps outlined below are no longer required. Core Simphony reports are now available to set up by default from within the R&A application.

If you are using R&A release 8.5.1, complete the following steps. Before you connect to R&A, you need to have:

- At least one property in the Enterprise. The *Oracle Hospitality Simphony Configuration Guide* contains more information about adding properties to the Enterprise.

- Organizations and report locations created in R&A for your properties in the Enterprise. The *Hospitality Enterprise Back Office Installation Guide* contains more information about the prerequisite configurations that are required when creating organizations and report locations.

To identify the location of R&A on the system, perform the following steps:

1. In the EMC, select the Enterprise level, click the **Setup** tab, click **Enterprise Parameters**, and then click the **Reporting and Analytics** tab.

2. In the **Reporting and Analytics Machine Name** field, enter the name of the computer that is running the **MICROS Portal Service**.

3. Select the Enterprise level, click the **Setup** tab, and then click **Properties**.

4. Double-click a property to open it.

5. Select the **Report Location** for the property.

6. If the Report Location is not available in the drop-down list:
   a. Click **New**, and then create a Report Location.
   b. Complete each field (required) as described below:
      - **Name**: Enter the property name.
      - **Location Reference**: Enter the Property ID. This must be unique.
• **Time Zone**: Select the time zone from the drop-down list that matches the property’s time zone.

• **Simphony Labor Logon**: Enter a unique user name.

• **Simphony Labor Password**: Enter a unique password.

7. Click **OK**, and then click **Save**.

Figure 4-1  Report Location Configuration

8. Repeat Steps 4 through 7 for all properties in the Enterprise.
Removing POS and Reporting

- Uninstalling Simphony and Reporting and Analytics

Uninstalling Simphony and Reporting and Analytics

Uninstalling removes the Simphony application only. To completely remove Simphony from the servers, you must manually delete the Simphony database components from the database after uninstalling the application.

1. Run the Simphony release 18.2 installation application, and click Next.
   
   If you have the application and the database on separate servers, run the installation application on the application server.

2. Enter the credentials for a database administrator, and then click OK.
   
   - If you are using an Oracle database, enter the credentials for the sys user.
   
   - If you are using Microsoft SQL Server, enter the credentials for the sa user.

3. Select Uninstall Simphony, and then click Next.

4. Click Confirm.
   
   To uninstall Reporting and Analytics see the Hospitality Enterprise Back Office Installation Guide for more information.
Appendix A: Sample Script for Creating Oracle Tablespaces

DECLARE

cursor mcrspos_tablespace_check is
    select tablespace_name
    from dba_tablespaces
    where tablespace_name = 'MCRSPOS';
v_tablespace varchar2(40);
v_path VARCHAR2(100);
sql_stmt VARCHAR2(10000);
BEGIN

    open mcrspos_tablespace_check;
    fetch mcrspos_tablespace_check into v_tablespace;
    if mcrspos_tablespace_check%NOTFOUND then
        SELECT substr(file_name, 1,(INSTR(file_name,'\', -1, 1)))
        into v_path
        from dba_data_files where rownum < 2;

        sql_stmt := 'CREATE TABLESPACE MCRSPOS LOGGING DATAFILE '
                    || v_path || ' SIZE 512M AUTOEXTEND ON NEXT 128M MAXSIZE UNLIMITED
                    EXTENT MANAGEMENT LOCAL SEGMENT SPACE MANAGEMENT AUTO';

        execute immediate sql_stmt;
    end if;

    close mcrspos_tablespace_check;
END;
/

DECLARE

cursor MCRSCACHE_tablespace_check is
    select tablespace_name
    from dba_tablespaces
    where tablespace_name = 'MCRSCACHE';
v_tablespace varchar2(40);
v_path VARCHAR2(100);
sql_stmt VARCHAR2(10000);
BEGIN

    open MCRSCACHE_tablespace_check;
    fetch MCRSCACHE_tablespace_check into v_tablespace;
    if MCRSCACHE_tablespace_check%NOTFOUND then
        SELECT substr(file_name, 1,(INSTR(file_name,'\', -1, 1)))
        into v_path
        from dba_data_files where rownum < 2;
sql_stmt := 'CREATE TABLESPACE MCRSCACHE LOGGING DATAFILE \\
  v_path || 'MCRSCACHE01.dbf' || ' SIZE 128M AUTOEXTEND ON NEXT 128M MAXSIZE UNLIMITED EXTENT MANAGEMENT LOCAL SEGMENT SPACE MANAGEMENT AUTO' ;

eexecute immediate sql_stmt;

dend if;
close MCRSCACHE_tablespace_check;
END;
/'
Appendix B: Troubleshooting

- Insufficient System Privileges
- Cannot Connect to the Database Server During the Simphony Installation

Insufficient System Privileges

The Insufficient System Privileges message appears when the prerequisite, Internet Information Services (IIS), was not installed.

Installing Microsoft Internet Information Services (IIS) and Windows Communication Foundation (WCF) Features contains instructions to install Microsoft IIS.

Cannot Connect to the Database Server During the Simphony Installation

The Simphony installation application may not connect to the database server due to the following reasons:

- Windows Firewall is running
- Simphony and SimphonyXDB instances are not running

Adding Simphony to the Windows Firewall Exceptions

The Microsoft Windows Firewall that is enabled by default on your operating system could prevent the Simphony installation application from connecting to the database server. You must set up an exception rule on your firewall setting for the Simphony server and the database server to continue with the installation. For instructions setting up exception rules in Microsoft Windows Firewall, refer to the Microsoft TechNet Library at https://technet.microsoft.com/en-us/library.

Installing Simphony on Separate Servers

If you are using a separate database server, you must set up an incoming rule to allow connections from Simphony, depending on your database platform, using either the default port or the port you assign during Installation. By default, the Oracle database server uses port 1521 and Microsoft SQL Server uses port 1443. For instructions on opening a port in Microsoft Windows Firewall, refer to the Microsoft TechNet Library at https://technet.microsoft.com/en-us/library.

Starting the Oracle Listener

If the Oracle Listener is not running, Simphony services cannot start. Ensure that the Oracle Listener is running.

- If you are using Oracle Linux, run the command $ lsnrctl status. If the Listener is running, you will see the listener configuration settings and the services summary.
• If you are using Microsoft Windows, make sure that the Oracle TNS Listener service (for example, OracleOraDb11g_home1TNSListener) is set to **Started** in the Microsoft Windows Services utility.

If the Oracle Listener is not running, you need to manually restart the Listener using the Linux command `lsnrctl start`. The *Platform Guide for Microsoft Windows* and the *Administrator's Reference for Linux and UNIX-Based Operating Systems* contain more information about manually starting Oracle services.